

PATENT  
Attorney Docket No. INL-052

JC973 U.S. PTO  
09/871885  
06/31/01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Mansouri et al.  
SERIAL NO.: To Be Assigned GROUP NO.: To Be Assigned  
FILING DATE: Herewith EXAMINER: To Be Assigned  
TITLE: Analytical Instruments, Biosensors and Methods Thereof

Commissioner for Patents  
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with the provisions of 37 C.F.R. 1.97 and 1.98, Applicants hereby make of record the patents and publications listed on the accompanying Form PTO-1449, and other information contained herein, for consideration by the Examiner in connection with the examination of the above-identified patent application. Copies of the patents and publications are enclosed.

REMARKS

In accordance with the provisions of 37 C.F.R. 1.97, this statement is being filed (CHECK ONE):

- ☒ (1) within three (3) months of the **filing date** of a national application other than a continued prosecution application under 37 C.F.R. 1.53(d), or within three (3) months of the **date of entry of the national stage** as set forth in 37 C.F.R. 1.491 in an international application, or before the mailing of the **first Office action** on the merits, or before the mailing of a **first Office action** after the filing of a request for continued examination under 37 C.F.R. 1.114; or
- ☐ (2) after the period defined in (1) but before the mailing date of a **final action** or a **notice of allowance** under 37 C.F.R. 1.311, and
- ☐ the requisite Statement is below, **OR**
- ☐ the requisite fee under 37 C.F.R. 1.17(p), namely **\$180.00**, is included herein, or
- ☐ (3) after the mailing date of a **final action** or **notice of allowance** but before the payment of the **issue fee**, **AND**

- ☐ the requisite Statement is below, **AND**
- ☐ the requisite petition fee under 37 C.F.R. 1.17(p), namely **\$180.00** is included herein.

It is respectfully requested that each of the patents and publications listed on the attached Form PTO-1449, and other information contained herein, be made of record in this application.

### STATEMENT

As required under 37 C.F.R. 1.97(e), Applicant(s), through the undersigned, hereby state either that **[check the appropriate space only if either (2) or (3) is checked on the previous page and the Statement is required]**:

- ☐ 1. Each item of information contained in the Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application **not more than three months** prior to the filing of the Information Disclosure Statement; or
- ☐ 2. No item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this Statement after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to **any individual** designated in 37 C.F.R. 1.56(c) **more than three months** prior to the filing of the Information Disclosure Statement.

Respectfully submitted,

Date: May 31, 2001  
Reg. No. 44,244

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09/871885

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| <p><b>FORM PTO - 1449</b></p> <p><b>INFORMATION DISCLOSURE STATEMENT</b></p> | <p>ATTORNEY DOCKET NO.: INL-052 (4643/94)</p> <p>APPLICANT(S): Mansouri et al.</p> <p>SERIAL NO.: To Be Assigned</p> <p>FILING DATE: Herewith    GROUP: To Be Assigned</p> |
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## U.S. PATENT DOCUMENTS

| EXAM.<br>INIT. |    | DOCUMENT<br>NUMBER | DATE     | NAME            | CLASS | SUB<br>CLASS | FILING DATE IF<br>APPROPRIATE |
|----------------|----|--------------------|----------|-----------------|-------|--------------|-------------------------------|
|                | A1 | 4,355,105          | 10/19/82 | Lantero, Jr.    | 435   | 94           | 3/30/81                       |
|                | A2 | 4,390,627          | 1/28/83  | Lantero, Jr.    | 435   | 180          | 10/26/81                      |
|                | A3 | 4,551,482          | 11/5/85  | Tschang et al.  | 521   | 53           | 1/23/83                       |
|                | A4 | 4,734,184          | 3/29/98  | Burleigh et al. | 204   | 409          | 2/26/87                       |
|                | A5 | 4,760,024          | 7/26/88  | Lantero, Jr.    | 435   | 178          | 1/17/86                       |
|                | A6 | 5,286,364          | 2/15/94  | Yacynych et al. | 204   | 418          | 3/29/91                       |
|                | A7 | 5,540,828          | 7/30/96  | Yacynych        | 204   | 418          | 2/15/94                       |
|                | A8 | 5,541,097          | 7/30/96  | Lantero et al.  | 435   | 188          | 2/9/95                        |
|                | A9 | 6,133,229          | 10/17/00 | Gibson et al.   | 514   | 2            |                               |

## FOREIGN PATENT DOCUMENTS

| EXAM.<br>INIT. |    | DOCUMENT<br>NUMBER | DATE    | COUNTRY<br>CODE | CLASS | SUB<br>CLASS | FILING<br>DATE | ABSTRACT<br>ONLY | ENGLISH<br>LANG<br>(Y/N) |
|----------------|----|--------------------|---------|-----------------|-------|--------------|----------------|------------------|--------------------------|
|                | B1 | 0,133,531 A1       | 2/27/85 | EP              |       |              | 7/31/84        |                  | Y                        |
|                | B2 | 0,133,531 B1       | 2/27/85 | EP              |       |              | 7/31/84        |                  | Y                        |

## OTHER ART, JOURNAL ARTICLES, ETC.

| EXAM. INIT. | OTHER DOCUMENTS: (Including Author, Title, Date, Relevant Pages, Place of Publication) |  |
|-------------|--|--|
|             | C1   | Hart et al., (1999) "Estimation of Lactate in Meat Extracts by Screen-Printed Sensors," <u>Analytica Chimica Acta</u> , Vol, 386, pp. 7-12   |
|             | C2   | Partel et al., (2000) "Fabrication and Characterization of Disposable Type Lactate Oxidase Sensors for Dairy Products and Clinical Analysis," <u>Sensors and Actuators</u> , Vol., B 67, pp. 134-141 |
|             | C3   | Andersson et al., (1999) "Protein Stabilising Effect of Polyethyleneimine" <u>Journal of Biotechnology</u> , Vol. 72, pp. 21-31  |

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| <b>FORM PTO - 1449</b><br><br><b>INFORMATION DISCLOSURE STATEMENT</b> |     | <b>ATTORNEY DOCKET NO.: INL-052 (4643/94)</b><br><br><b>APPLICANT(S): Mansouri et al.</b><br><br><b>SERIAL NO.: To Be Assigned</b><br><br><b>FILING DATE: Herewith    GROUP: To Be Assigned</b>  |
| <b>OTHER ART, JOURNAL ARTICLES, ETC.</b>                              |     |  |
|   | C4  | Chen et al., (1998) "Stability of Oxidases Immobilized in Silica Gels" <u>J. Am. Chem. Soc.</u> , Vol. 120, pp. 4582-4585  |
|   | C5  | Heller et al., (1998) "Loss of Activity or Gain in Stability of Oxidases Upon Their Immobilization in Hydrated Silica: Significant of the Electrostatic Interaction of Surface Arginine Residues at the Entrances of the Reaction Channels" <u>J. Am. Chem. Soc.</u> 1998, Vol. 120, pp. 4586-4590 |
|   | C6  | Minagawa et al., (1998) "Development of Long Life Lactate Sensor Using Thermostable Mutant Lactate Oxidase" <u>Biosensors and Bioelectronics</u> , Vol. 13, No. 3-4, pp. 313-318   |
|   | C7  | Yang et al., (1999) "Needle-type Lactate Biosensor" <u>Biosensors and Bioelectronics</u> , Vol. 14, pp. 203-210  |
|   | C8  | Garcia et al., (1990) "An Immobilization Technique Yielding High Enzymatic Load on Nylon Nets", <u>Biotechnology Techniques</u> , Vol. 4, No. 6, pp. 425-428   |
|   | C9  | Ghindilis et al., (1994) "Glucose Potentiometric Electrodes Based on Mediatorless Bioelectrocatalysis. A New Approach", <u>Biosensors &amp; Bioelectronics</u> , Vol. 9, pp. 353-357   |
|   | C10 | Cao et al., (1996) "Enhancing Enzymatic Properties by the Information Method" <u>Applied Biochemistry and Biotechnology</u> , Vol. 59, No. 1   |
|   | C11 | Emneus et al., (1993) "Comparison Between Different Inorganic Supports for the Immobilization of Amyloglucosidase and a-amylase to Be Used in Enzyme Reactors in Flo-Injections Systems" <u>Analytica Chimica Acta</u> , Vol. 276, pp. 303-318   |
|   | C12 | Mansouri et al., (1998) "Development of a Glucose Sensor and Its Inclusion in the GEM Blood Analyzer" <u>International Federation of Clinical Chemistry and Laboratory Medicine</u> OmniPress  |
|   | C13 | Geise et al., (1991) "Electropolymerized Films to Prevent Interferences and Electrode Fouling in Biosensors" <u>Biosensors &amp; Bioelectronics</u> , Vol. 6, pp. 151-160  |
|   | C14 | Sasso et al., (1990) "Electropolymerized 1, 2-Diaminobenzene as a Means to Prevent Interferences and Fouling and To Stabilize Immobilized Enzyme in Electrochemical Biosensors" <u>Analytical Chemistry</u> , Vol. 62, No. 11  |
| <b>EXAMINER</b>   |     | <b>DATE CONSIDERED</b>   |